

What is claimed is:

1. A cryogenic fluid distribution device, comprising:  
a fluid flow passage for distributing cryogenic fluid to an apparatus;  
an overflow passage positioned downstream of the apparatus; and  
a sensor coupled to the overflow passage, the sensor having an active component for determining if fluid is present in the overflow passage.
2. The device according to claim 1, wherein the active component is a light emitting diode.
3. The device according to claim 1, wherein the sensor includes a body having a through passage therein defining a flow area for fluid, the sensor further including a hole intersecting with the through passage.
4. The device according to claim 3, wherein the active component is positioned within the hole and impinges into the through passage.
5. The device according to claim 4, wherein the active component is a light emitting diode.
6. The device according to claim 1, further comprising a control device coupled to the sensor, the control device capable of receiving a signal from the sensor indicating a presence of liquid in the overflow passage and further capable of controlling a fluid flow within the fluid flow passage.

7. The device according to claim 6, wherein the control device controls fluid flow within the fluid flow passage by way of a valve coupled to the fluid flow passage.

8. The device according claim 7, wherein the control device outputs a control signal used to toggle the valve to a closed, the valve thereby preventing fluid from flowing within the fluid flow passage.

9. The device according to claim 6, wherein the signal from the sensor is a voltage signal.

10. A method of controlling fluid flow to a spectrometer detector element, comprising:

detecting a presence of fluid within an overflow passage using a sensor having an active sensor element associated therewith;

sending a voltage level signal produced by the active sensor element to a control device; and

receiving a signal from the control device for terminating a flow of fluid to the detector element.